

## SS57LA/SS57L LEAD SET FOR ELECTRODERMAL ACTIVITY (EDA) FOR USE WITH DISPOSABLE ELECTRODES

The EDA Lead connects to a single input channel to record electrodermal activity (changes in skin conductance) or, with modified setup, skin resistance from two EL507 disposable EDA (isotonic gel) electrodes.

Two pinch leads snap to the EL507 EDA electrodes and terminate in a two-conductor shielded cable with DSub9 connector.

SS57LA EDA Lead delivers accuracy over its specified range to within 5% with no calibration required.

**Biopac Student Lab Systems:** requires BSL 4.1 with MP36/35/46/45.

### Research Systems:

- MP36R – connect directly to a CH input
- MP160/150 – add the DA100C amplifier (set Gain: 1000 and Bandwidth: DC to 10 Hz) and the TCI114 interface

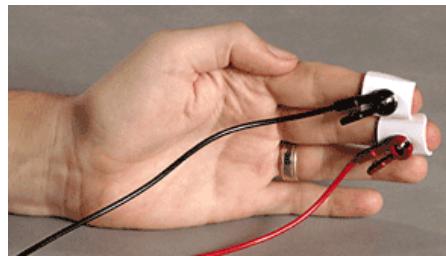
For BSL 4.1 and AcqKnowledge 4.4.1 and higher, the SS57LA is the recommended option.

The SS57L is suitable for BSL 3 or MP30.

For a reusable electrode option, see the [SS3LA EDA Finger Transducer](#).

### Specifications

Electrode Type:	Requires two Ag/AgCl disposable electrodes (EL507)
Excitation:	0.5 V DC
Range:	0.1-100 $\mu$ siemens (normal human range is 1-20 $\mu$ siemens)
Connector Type:	9 Pin DIN
Pinch Leads:	Red (+), Black (GND)
Weight:	4.5 grams
Cable Length:	2 meters
Accuracy:	Within 5% without calibration (SS57LA only)



## Usage Recommendations (SS57L)

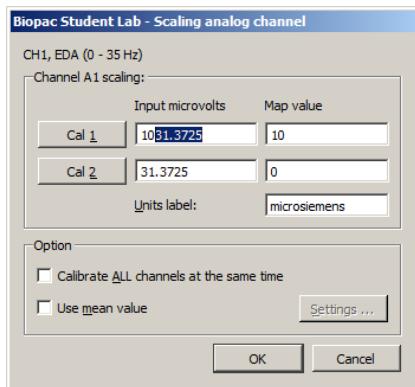
**Presets** - BSL PRO (and AcqKnowledge software for MP36R) includes the following EDA presets:

- Electrodermal Activity (EDA), 0-35 Hz; **requires calibration**—see details below
- Electrodermal Activity (EDA) Change; no calibration required (BSL PRO 4.0.3 and earlier only)

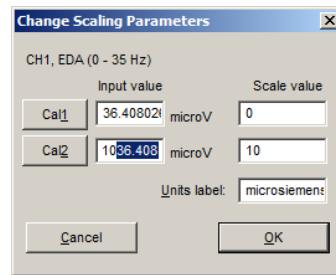
To navigate to the presets in the software, choose **MP > Set Up Data Acquisition** (BSL 4.1) or **Set Up Channels** (BSL 4.0.3 or earlier) > **Channels** > and select the desired EDA preset from the **Preset** pop-up menu.

### Single-point Calibration for (EDA) 0-35 Hz Preset

1. Disconnect the electrodes.
2. Click “Setup” > “Scaling” button in the software’s EDA preset dialog.
3. Click the **Cal 2** button.
4. Add the new **Cal 2** value to the default **Cal 1** value (example below left,  $1000 + 31.3725 = 1031.3725$ ) If the new **Cal 2** value is negative, then subtract that value from **Cal 1**.



BSL 4.x and AcqKnowledge 4.x EDA Scaling Dialog



Note that **Cal 1** and **Cal 2** values are reversed in software versions BSL 3.7.x and earlier.

BSL 3.7.x EDA Scaling Dialog

**Setup** - There must be good electrical connections between the skin and the electrodes for EDA to work properly.

**Gel** – It is recommended that an isotonic gel (GEL101A or equivalent) be added to the disposable electrodes to assure optimal skin contact.

1. Apply a small dot of GEL to each electrode being careful not to get any on the adhesive portion.
2. Attach the electrodes to the subject.
3. Wait 5 minutes (minimum) before starting to record data to allow the gel to penetrate the skin.

#### Tip



*To detect a good signal, subjects should have a little sweat on their hands (not a lot, but enough so that their hands are not completely smooth or cold). If subjects wash their hands just prior to the recording or if they have been sitting in a cold room, then they must do something to activate the sweat glands before beginning calibration or recording. If subjects begin with colder hands, the scale will be diminished and the signal will be easily saturated once they “warm up” during the lesson.*